



9450 SW Gemini Drive
PMB 44671
Beaverton, OR 97008
www.softlights.org

June 6, 2022

BY EMAIL

The Honorable Jocelyn Boyd
Chief Clerk / Executive Director
Public Service Commission of South Carolina
legalfilings@psc.sc.gov

Re: Mark Baker v. Duke Energy Progress, LLC
Docket No. 2022-155-E

Dear Jocelyn Boyd,

This letter is in response to the letter from Duke Energy Progress to the Commission dated June 6, 2022. I find it again necessary to addresses DEP's repeated false claims and false assertions. I wish to remind the Commission that the procedure that we are going through now was started by my inquiry with the South Carolina Office of Regulatory Staff, asking about the light quality of LED streetlights. The ORS is the agency that made the decision not to respond to my concerns about the light quality of LED streetlights, but to instead elevate my concerns to the Commission because of the ORS' belief that questions of light quality are of fundamental importance to the public. DEP continues to falsely accuse me of representing a DEP customer and of bringing a complaint to the commission on behalf of that customer. We are involved in this hearing process because ORS believes that the Commission hearing process is the best venue to learn about LED light quality.

We are not in a Discovery situation, as asserted by DEP. We are all involved in this hearing process to learn about LED light quality. I started my inquiry with the simple question posed to DEP of whether LED light is the same or better quality of light as the HPS light that existed previously. Through DEP's initial refusal to answer the question, to their June 6 response stating that DEP has no idea about the light quality, we have learned that DEP has negligently installed thousands of LED streetlights without knowing anything about how this LED light affects human health and welfare.

DEP claims that it is my responsibility and burden to provide proof that LED light is toxic and unsafe. This is untrue. DEP claims and asserts that LED streetlights are energy-efficient, which, by definition, requires the light to be the same quality as HPS. DEP is now attempting to claim that they have no idea about the quality of the light from their LED streetlights, which then immediately invalidates their claim that LED streetlights are energy efficient. Since DEP made the claim that LEDs are energy efficient, it is their burden to prove that their claim is valid; otherwise, the claim is simply false advertising, in violation of South Carolina Code Section 39-5-20.

DEP claims that the Illuminating Engineering Society has extensively investigated the health effects of LED light. This is a blatantly false claim. I have been in extensive communications with the IES for several years. IES's only efforts on investigating the health effects of LED light has been to push false narratives and to attack the American Medical Association for daring to suggest that LED light is toxic. DEP falsely claims that the scientific community has not reached a consensus on the toxicity of blue light. This claim by DEP is easily debunked by the hundreds of studies showing that blue light is a toxin.¹

In addition, DEP has failed to address the main cause of negative neurological effects from LED light caused by the spatially non-uniform directed energy beam created by flat surface sources as LED. The non-uniform energy and excessive peak luminance has been documented to cause epileptic seizures, migraines, panic attacks, eye damage, and numerous other negative neurological reactions. We have already submitted the testimony from MarieAnn Cherry of New York for the New York State Public Service Commission that DEP wishes the South Carolina Commission to simply ignore because it happened to a person in another state.

DEP asserts that LED streetlights are "industry standard". In common usage, "industry standard" means that the product is toxic and hazardous. For example, asbestos was an industry standard. Lead pipes were an industry standard. Oxycontin was an industry standard. DEP's claim that LED streetlights are industry standard merely supports the understanding that LED streetlights are toxic. DEP has not asserted that LED light is "safe" or "high quality", only that LED light is "industry standard."

DEP makes the claim that LEDs are "highly efficient" (Page 3, Line 3). This is a false claim, and the Commission must take this false claim extremely seriously. To claim efficiency, the LED streetlight would need to be compared to the HPS streetlight. In addition, the LED streetlight would need to produce the same quality of light as the HPS streetlight. Yet, DEP has claimed that they have no idea about the quality of light emitted by an LED. DEP is falsely claiming that LED streetlights are highly efficient without the evidence to support their claim, in violation of South Carolina Code Section 39-5-20.

DEP claims that LED streetlights promote a "safer environment". This is another untrue claim. There are now hundreds of examples of murders carried out directly under LED streetlights. The evidence shows that the high energy blue wavelength light causes agitation and alertness, thus increasing the risk of aggressive behavior. DEP provides no proof that LED streetlights promote a safer environment, while the research shows otherwise. For example, a recent study showed that streetlights increase the risk of property crime.¹

The US Food and Drug Administration is the agency responsible for regulating electronic products. The FDA specifically regulates light-emitting products in the federal Code of Regulations Title 21, Chapter I, Subchapter J, Part 1040.² As noted in Part 1040, the FDA has the following regulations:

1040.10 Laser products
1040.20 Sunlamp products
1040.30 Mercury Vapor lamps

¹ www.softlights.org/resources

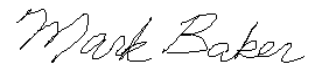
² <https://www.ecfr.gov/current/title-21/chapter-I/subchapter-J/part-1040>

What is missing from the FDA regulations is part 1040.40 LED products. Duke Energy Progress has sold and installed millions of LED streetlights without waiting for FDA approval; and, as admitted by DEP, they have no idea of the impacts of LED light on human health and welfare. By rushing to install LED streetlights without waiting for FDA approval, DEP is now responsible for the injuries and discrimination caused by LED light.

At this time, through DEP's own submissions to the Commission, it is now clear that the Commission must immediately direct DEP to stop the installation of any new LED streetlights and wait until the FDA approves LED products by publishing 1040.40 LED products. DEP may petition the FDA for this approval via the FDA's petition process. The Commission cannot allow DEP to continue installing unregulated LED streetlights that have been shown to be toxic, dangerous, and discriminatory.

In addition, just as the New York State Public Service Commission is currently investigating National Grid for their false claims related to LED streetlights (Case Number: 21-02623), the South Carolina Public Service Commission must investigate DEP's numerous false claims, including the false claim that LEDs are energy efficient, the false assertion that LED light is safe for human health, and the false claim that LED light promotes a safer environment.

Sincerely,



Mark Baker
President

Soft Lights Foundation
mbaker@softlights.org